IN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended)   A computer system, comprising:

a processor,

a memory, and

a basic input and output system (BIOS) ~~for a computer system~~, further comprising[[:]]

a main engine to call and run routines, wherein some of the routines require

resource accesses to a plurality of resources within the computer systems; and

a synchronization module to synchronize concurrent running of the routines ~~the~~

~~resource accesses~~ that include concurrent resource accesses to different ones of the

resources, wherein the synchronization module allows for the concurrent running of the

routines with the concurrent resource accesses to different ones of the resources by

blocking competing concurrent resource accesses while permitting (1) non-competing

concurrent resource accesses and (2) non-resource access operations.

2. (Original)   The BIOS of claim 1, further comprising an access indicator associated

with each of the resources to be accessed, wherein the access indicator controls access to its

associated resource and does not affect access to another resource.

3. (Original)   The BIOS of claim 2, wherein when a routine wants to access one of the

resources, the synchronization module decreases the value of the access indicator of that one of

the resources by a predetermined amount before allowing the routine to access the one of the

resources.

4. (Original)   The BIOS of claim 2, wherein if the value of the access indicator of the

one of the resources is equal to zero, that one of the resources is not accessible by any other routine.

5. (Original)   The BIOS of claim 2, wherein the access indicator and the synchronization module allow concurrent accesses to one of the resources by multiple routines when the access indicator of the one of the resources is assigned with a value greater than one.

6. (Original)   The BIOS of claim 5, wherein the concurrent accesses to one of the resources by multiple routines are read/write operations to that one of the resources.

7. (Original)   The BIOS of claim 2, wherein the access indicator and the synchronization module allow anyone of the routines that does not require resource access to be running concurrently with the resource accesses.

8. (Original)   The BIOS of claim 1, wherein the BIOS is an EFI (Extensible Firmware Interface) based BIOS.

9. (Currently Amended)   A method of synchronizing concurrent resource accesses by a plurality of routines in a basic input and output system (BIOS) of a computer system, comprising:

associating an access indicator with each of a plurality of resources;

determining what current value an access indicator of a resource has when a routine wants to access that resource, wherein the value of the access indicator indicates how many routines are allowed to access the resource concurrently; and

changing the value of the access indicator by a predetermined amount and granting access to the resource to the requesting routine if the value is not at a predetermined level; and

synchronizing concurrent running of the routines such that routines that have been granted accesses to their corresponding resources and routines that do not require resource access run concurrently.

10. (Original) The method of claim 9, wherein the access indicator of each of the resources is assigned with an initial value.

11. (Original) The method of claim 9, further comprising not changing the value of the access indicator and not granting access to the resource to the requesting routine if the value of the access indicator is determined to be already at the predetermined level.

12. (Original) The method of claim 11, wherein the changing is performed by decreasing the value of the access indicator by the predetermined amount and granting access to the resource to the requesting routine if the value is not at a predetermined lowest level, wherein the access to the resource by the requesting routine does not affect operation of any other routine that does not require access to this resource.

13. (Original) The method of claim 12, wherein the predetermined lowest level is zero and the predetermined amount is one.

14. (Original) The method of claim 12, further comprising increasing the value of the access indicator by the predetermined amount after the routine has accessed the resource.

15. (Original) The method of claim 9, wherein the BIOS is an EFI (Extensible Firmware Interface) based BIOS.

16. (Currently Amended) <u>A computer readable storage storing a computer program that can be executed by a processor and that include</u> ~~An article of manufacture comprising a machine accessible medium including~~ sequences of instructions, the sequences of instructions including instructions which, when executed <u>by the processor</u>, cause the ~~machine~~ <u>processor</u> to perform <u>a method of synchronizing concurrent resource accesses by a plurality of routines in a basic input and output system (BIOS) of a computer system, comprising</u>:

associating an access indicator with each of ~~a plurality of~~ <u>the</u> resources;

determining what current value an access indicator of a resource has when a routine wants to access that resource, wherein the value of the access indicator indicates how many routines are allowed to access the resource concurrently; ~~and~~

changing the value of the access indicator by a predetermined amount and granting access to the resource to the requesting routine if the value is not at a predetermined level<u>; and</u>

<u>synchronizing concurrent running of the routines such that routines that have been granted accesses to their corresponding resources and routines that do not require resource access run concurrently.</u>

17. (Currently Amended) The <u>storage</u> ~~article of manufacture~~ of claim 16, wherein the access indicator of each of the resources is assigned with an initial value.

18. (Currently Amended) The <u>storage</u> ~~article of manufacture~~ of claim 16, further comprising not changing the value of the access indicator and not granting access to the resource to the requesting routine if the value of the access indicator is determined to be already at the predetermined level, wherein the access to the resource by the requesting routine does not affect operation of any other routine that does not require access to this resource.

19. (Currently Amended) The <u>storage</u> ~~article of manufacture~~ of claim 18, wherein

the changing is performed by decreasing the value of the access indicator by the predetermined

amount and granting access to the resource to the requesting routine if the value is not at a

predetermined lowest level.

20. (Currently Amended)   The <u>storage</u> ~~article of manufacture~~ of claim 19, wherein

the predetermined lowest level is zero and the predetermined amount is one.

21. (Currently Amended)   The <u>storage</u> ~~article of manufacture~~ of claim 19, further

comprising increasing the value of the access indicator by the predetermined amount after the

routine has accessed the resource.

22. (Currently Amended)   The <u>storage</u> ~~article of manufacture~~ of claim 16, wherein

the instructions are within an EFI (Extensible Firmware Interface) based BIOS (Basic Input

Output System).